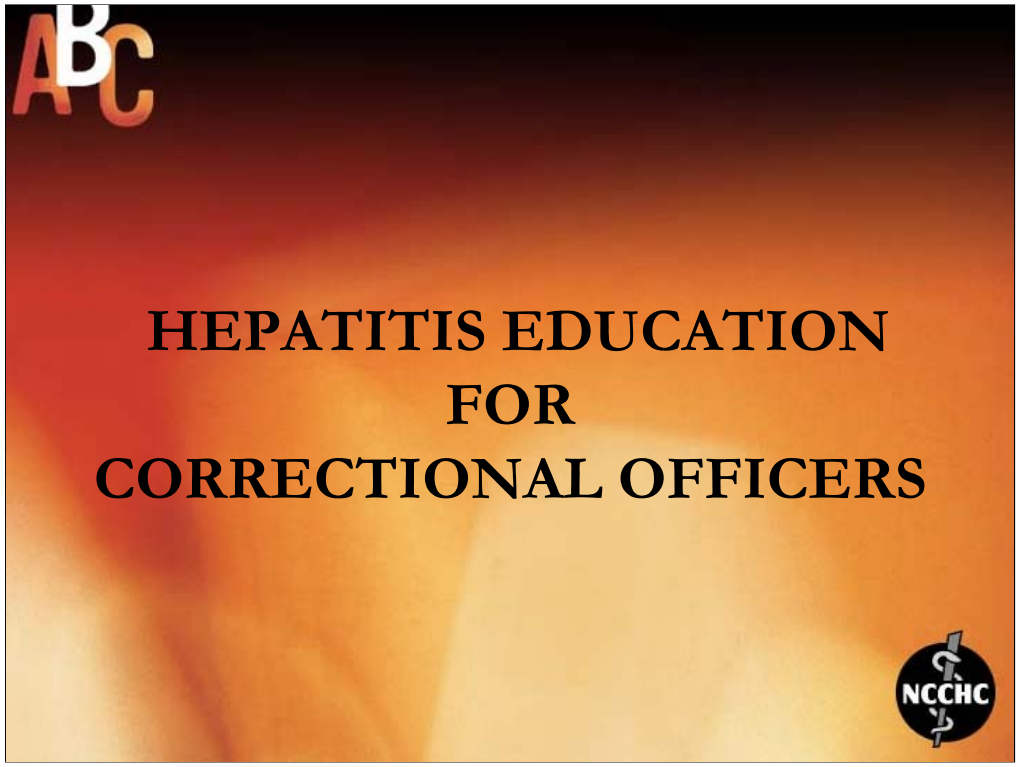


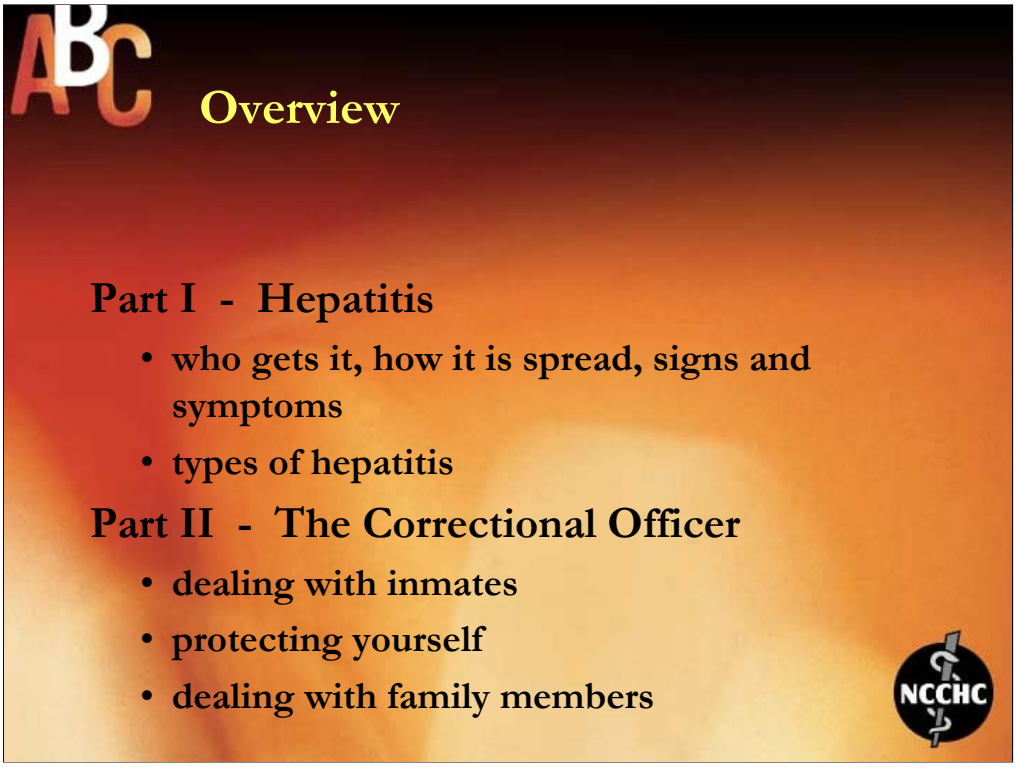
0:00 Introduction

Introduce yourself and set a positive tone for the learning experience.

Distribute the handouts for the presentation (see Tab 4 Resources).

In this lecture, ***bolded*** *words may need further explanation to the audience. As stated in the introduction, an NCCHC study of correctional officers, in four different regions of the country, found on average a 12th grade reading level of the officers tested.*

Make sure the audience understands the term before you proceed.



0:01 Overview

This presentation on viral hepatitis is divided into two parts. During the first part

- we will discuss the three types of viral hepatitis (A, B and C),
- we will discuss what it actually is, who gets it and how it is spread,
- the signs and symptoms that tell if you have it, and
- the treatment for the specific type of hepatitis.

During the second part,

- we will discuss the issues that are of direct concern to you, the correctional officer,
- we also will focus on dealing with inmates and protecting yourself against viral hepatitis, and
- I also will discuss how to approach the subject with members of your family.

The audience handout will help you follow the presentation.

There will be a discussion period after each part is presented for questions.

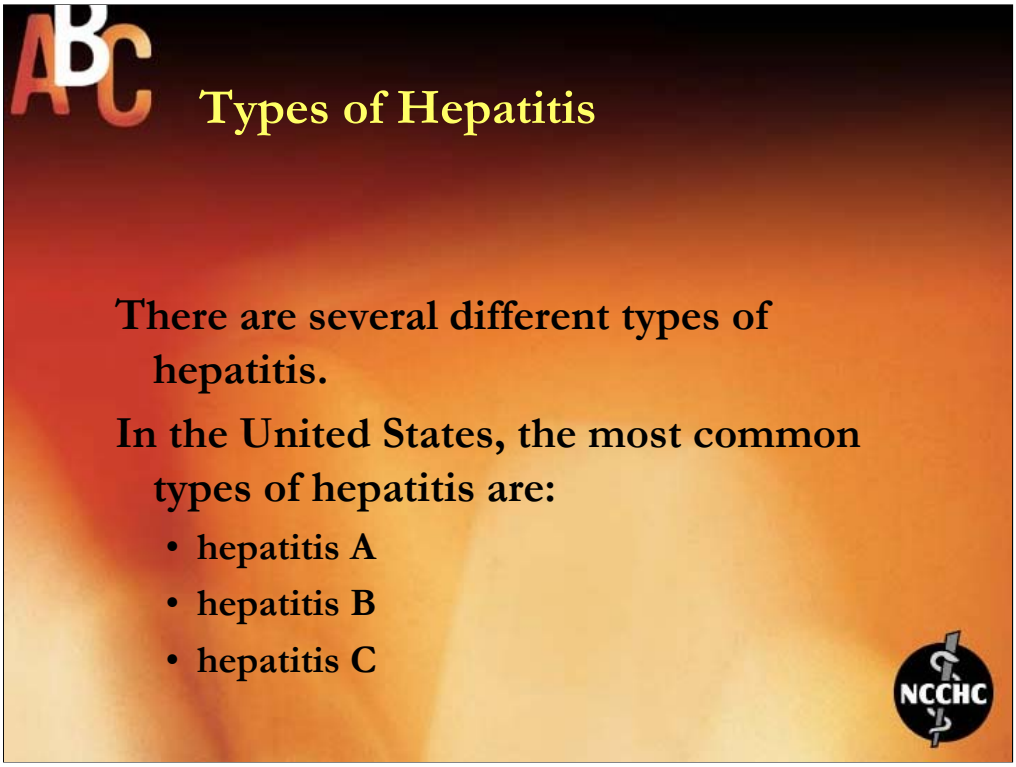
You've already taken the test to show how much you know about hepatitis now.

Afterwards, I will be giving you another test to see if you learned anything new from the presentation.

ANY QUESTIONS?

Q. How long is this presentation going to take?

Approximately an hour and a half.



0:04 Types of Hepatitis

The story of viral hepatitis is interesting.

There are many types,

- the most common being hepatitis A, B, and C.

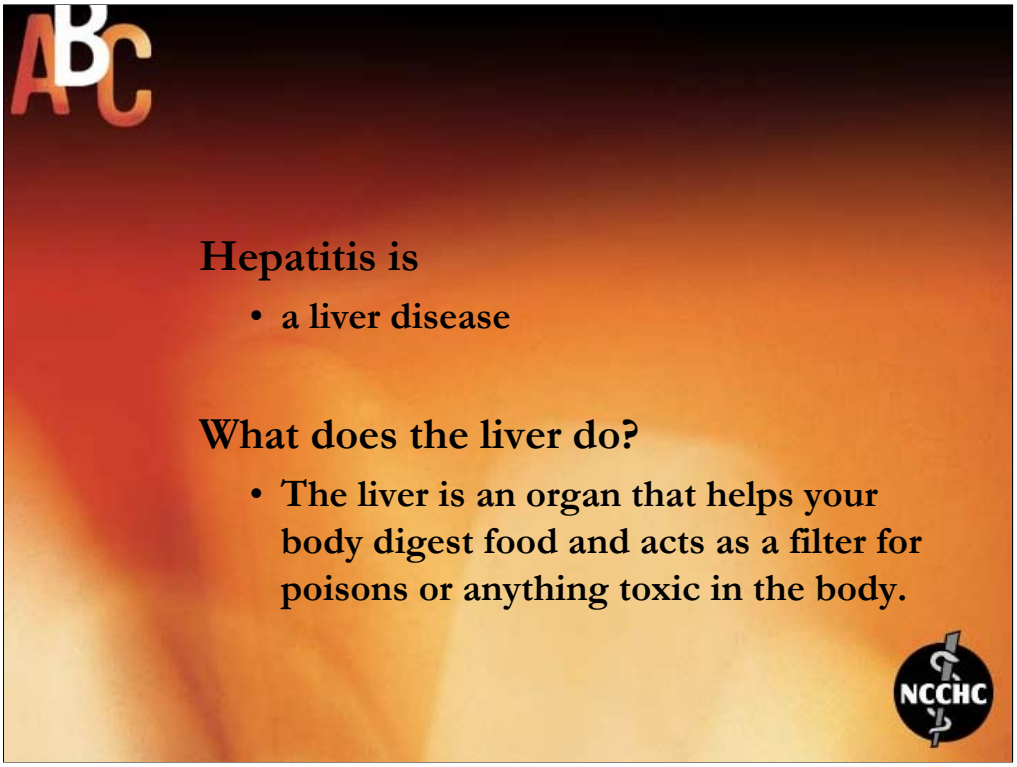
Each is caused by a virus.

We begin with a discussion of viruses and the liver.

What is a virus?

- A virus is a **contagious agent** found in basically all life forms, including humans, animals, plants, **fungi**, and bacteria.
- Viruses are extremely small, between 20 and 100 times smaller than bacteria, and cannot be seen under a microscope.

Viruses cannot **reproduce** outside of a living cell.



What does the liver do?

- The liver is an organ that helps your body **digest** food and acts as a **filter** for poisons or anything **toxic** in the body.

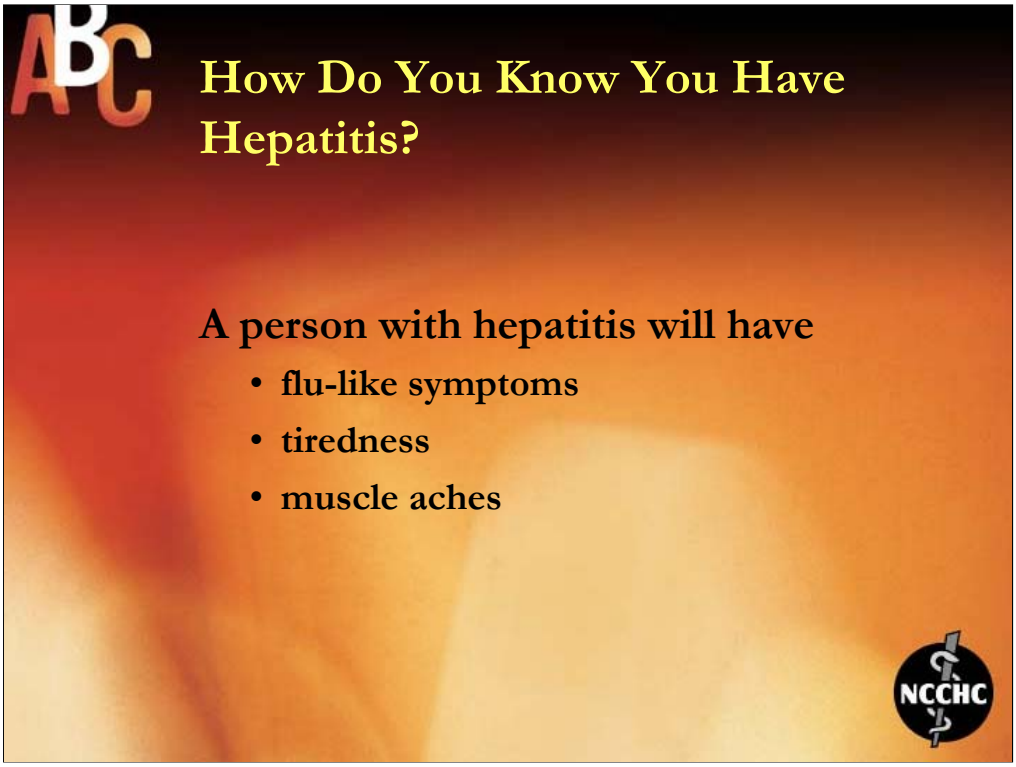
Where is the liver?

- The liver is located in the right upper **quadrant** of the **abdomen**.

Source: http://www.som.tulane.edu/classware/pathology/medical_pathology/McPath/GR_Liver/Liver1.html

This is a normal liver. It is dark reddish-brown in color with a **fine lobular texture**.

Notice the **smooth capsular** (compartment) surface at the left.



0:05 How Do You Know You Have Hepatitis?

During the **acute (sudden or fast)** phase of **hepatitis** (an inflammation of the liver), the person begins to feel ill if symptoms and signs are present.

Sometimes, a person feels like they have a cold or flu-like symptoms and signs such as tiredness and muscle aches.

However, remember that many times a person does not even know that they have hepatitis.

Chronic is a long-term phase of the disease that affects the liver and is **infectious** (passed on) to others.

Sometimes the person has jaundice. **Jaundice** is a yellow color of the skin and whites of the eyes that usually lasts 2-5 weeks.

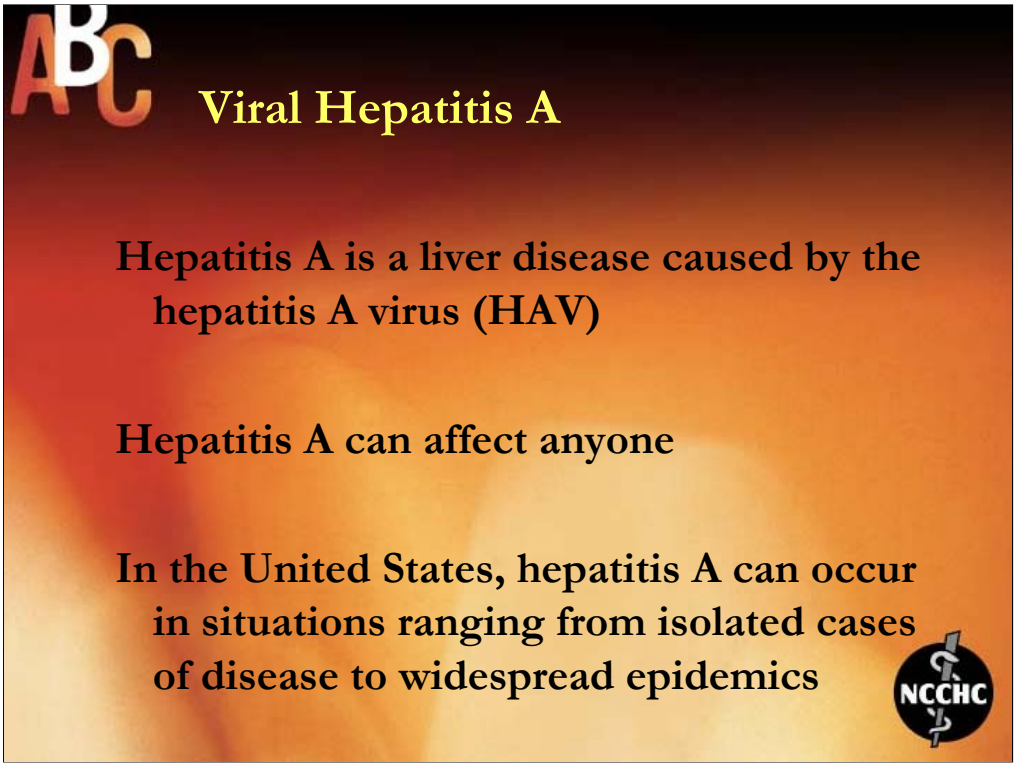
The majority of people with hepatitis never have jaundice.

Dark urine or clay-colored stools (light sand color) sometimes occur 1 to 5 days before the beginning of jaundice.

Persons with hepatitis may also have a fever.

As I mentioned, there are many types of hepatitis, the most common being hepatitis A, B, and C.

Let's begin with hepatitis A.



0:06 Viral Hepatitis A

Hepatitis A is a liver disease caused by the hepatitis A virus (HAV).

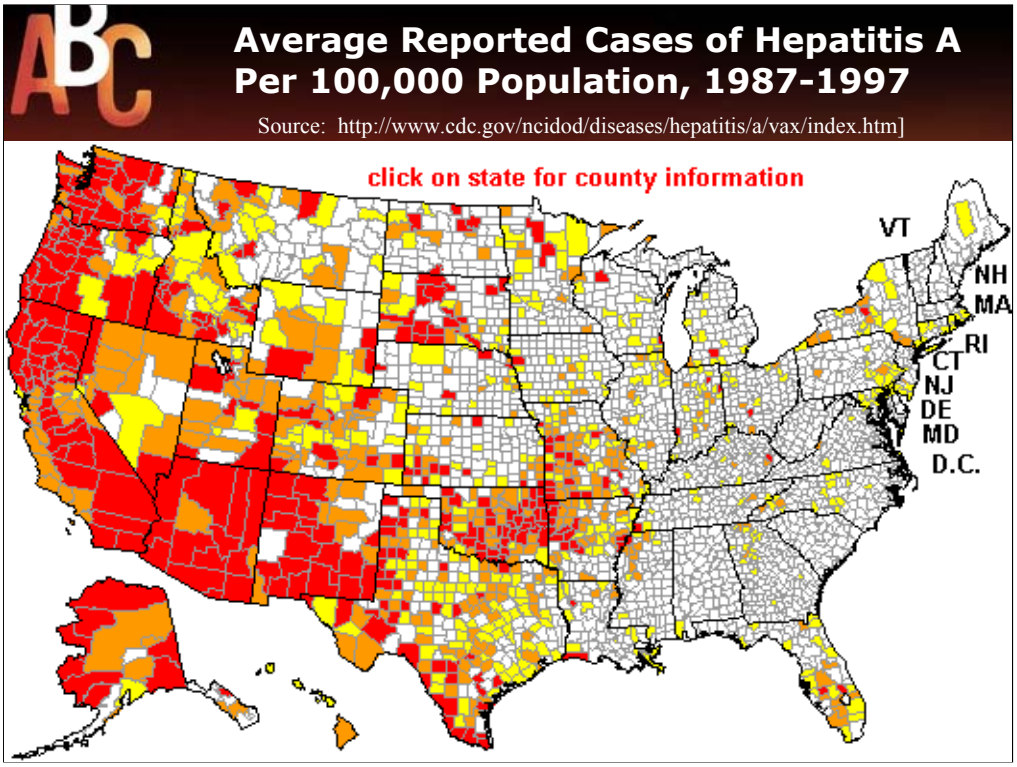
- Hepatitis A can affect anyone.
- In the United States, hepatitis A can occur in situations ranging from **isolated** cases of disease to **widespread epidemics**.
- Occurs in epidemics both nationwide and in **clusters**.

During epidemic years, the number of reported cases reached 35,000.

In the late 1990s hepatitis A vaccination was more widely used and the number of cases reached historic lows.

One-third of Americans have evidence of past HAV infection.

Although viral hepatitis A occurs in virtually every area of the United States, certain states and counties have higher rates than others.

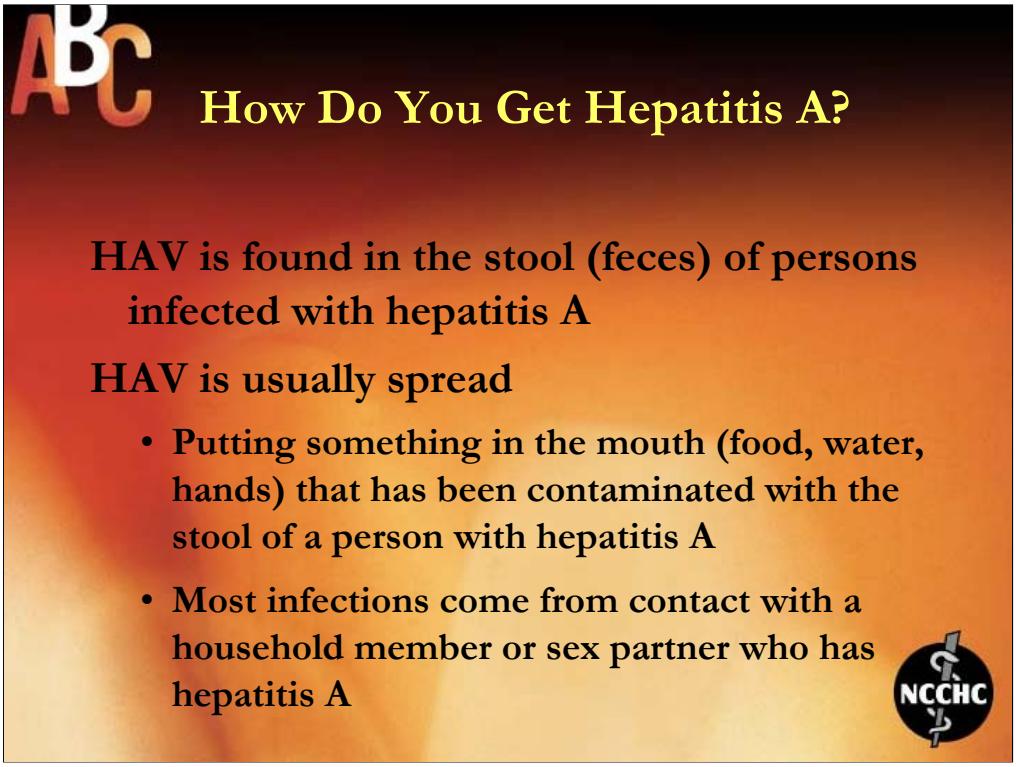


0:09 Prevalence

Here in _____ the prevalence rate for
(your county)

hepatitis A is:_____

[NOTE: To determine YOUR county and state rates go to
http://www.cdc.gov/ncidod/diseases/hepatitis/a/vax/index.htm]



0:10 How Do You Get Hepatitis A?

You get hepatitis A through close person-to-person contact.

Generally, by eating food or drinking water (even though it may look clean) that has been contaminated with the feces of a person with hepatitis A.

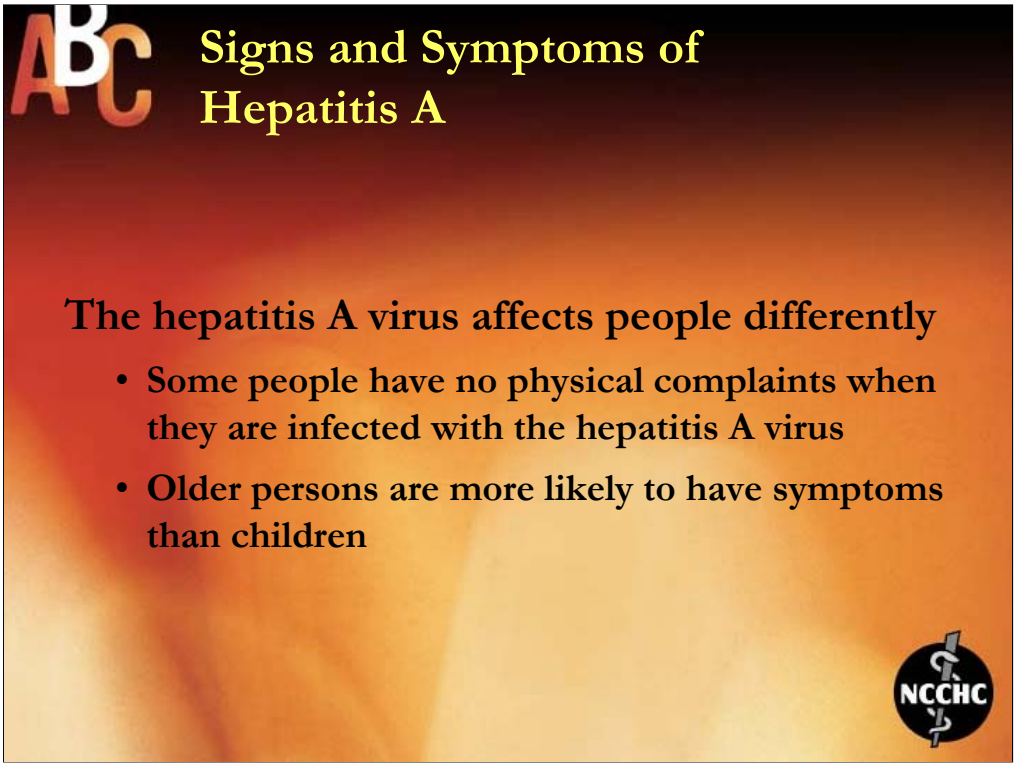
Placing contaminated hands in your mouth can also spread hepatitis A.

It is very important for Correctional Officers to wear gloves when handling inmate linen or clothing.

Most infections come from contact with a household member or someone you have sex with who has hepatitis A.

Casual contact, such as in an office, does not spread the virus.

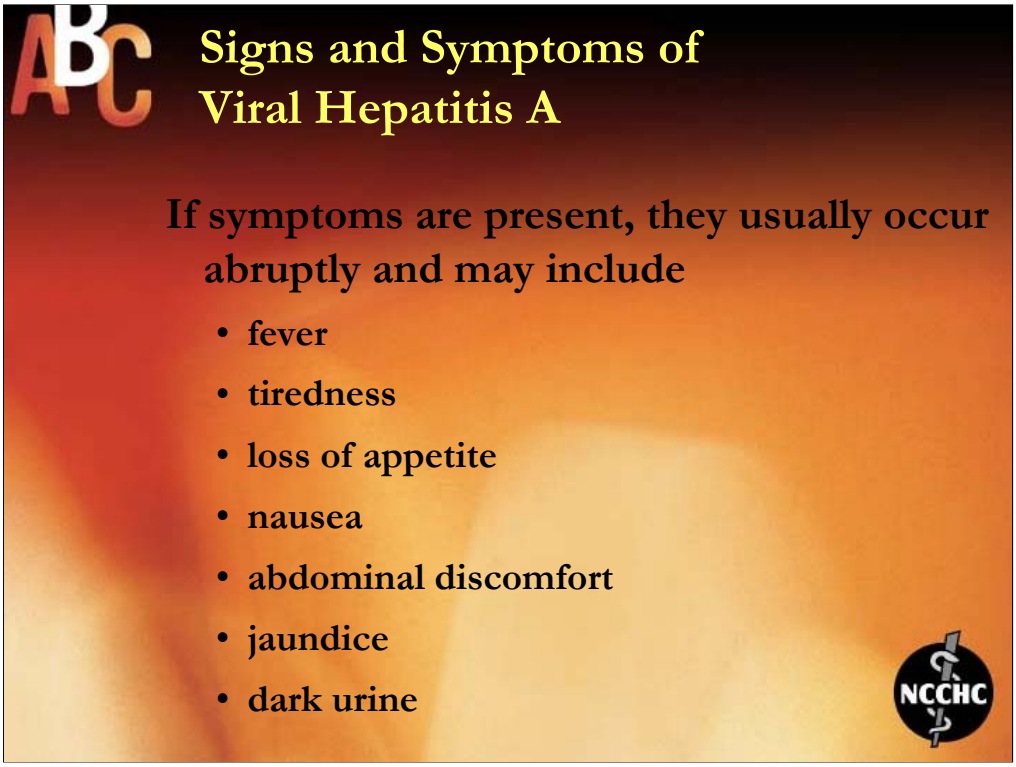
- For example, just touching an inmate does not spread hepatitis A.



0:12 Signs and Symptoms of Hepatitis A

Persons with hepatitis A virus infection may not have any signs or symptoms of the disease.

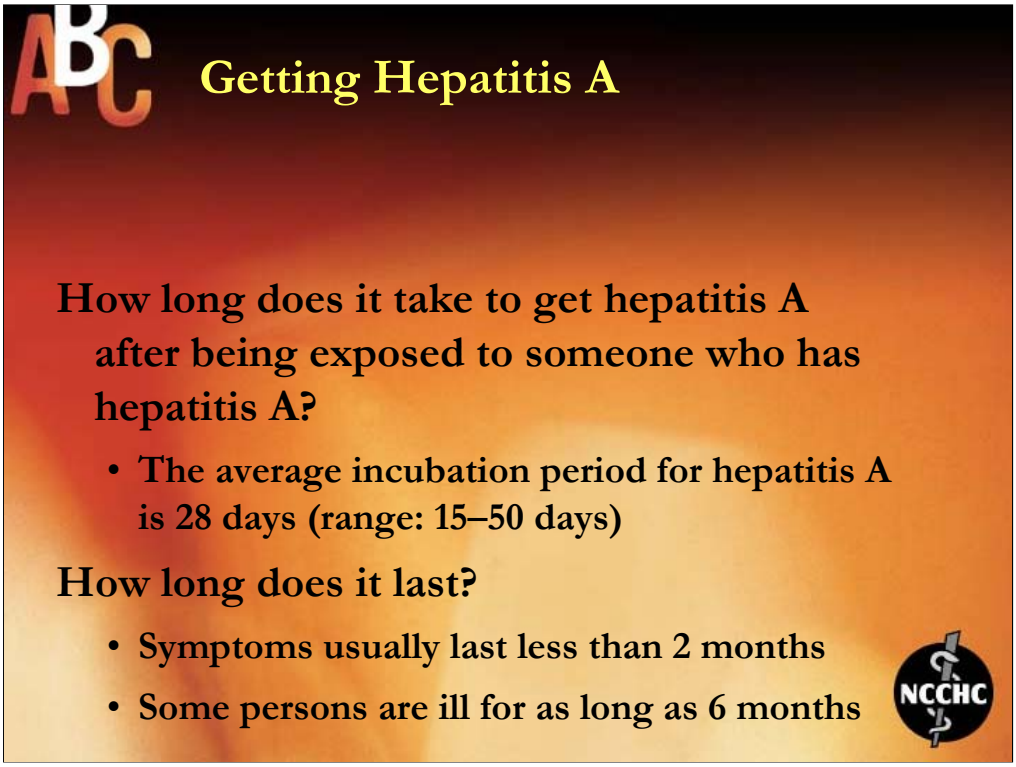
Older persons are more likely to have symptoms than children.



0:13 Signs and Symptoms of Viral Hepatitis A

If symptoms are present, they usually occur abruptly and may include

- fever (the most reported symptom)
- tiredness,
- loss of appetite,
- nausea,
- vomiting,
- abdominal discomfort,
- **jaundice** (yellowing of the skin and eyes), and
- dark urine.

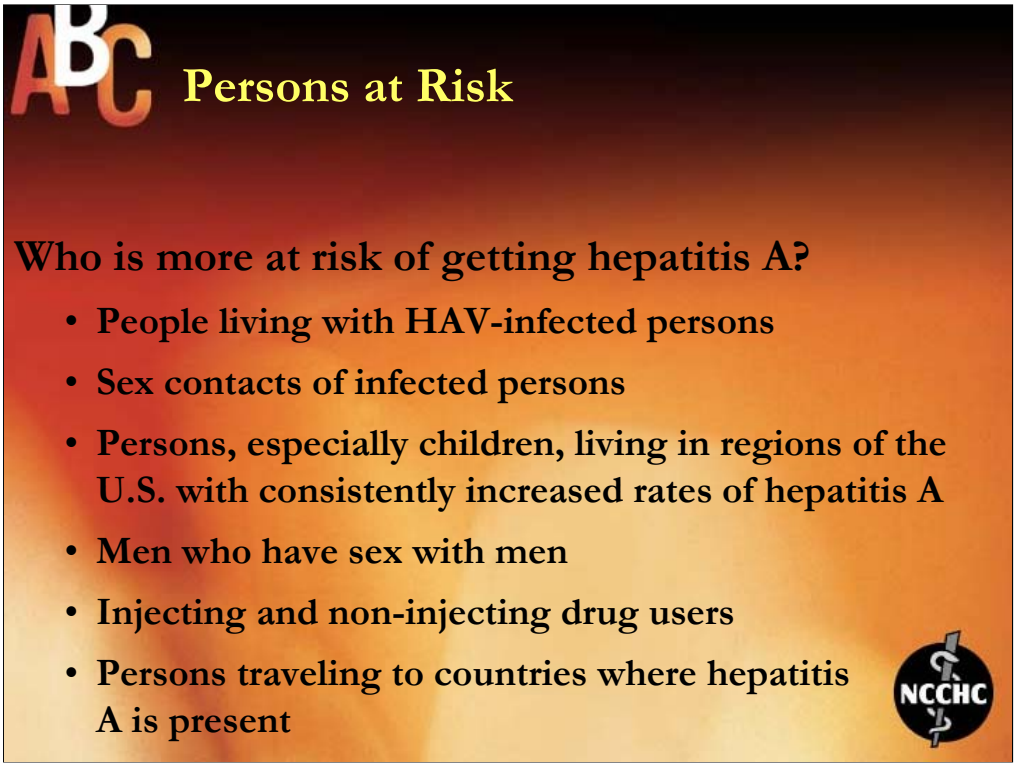


0:15 Getting Hepatitis A

The average incubation period (that is, when you are first exposed to the time you get sick) for hepatitis A is 28 days (range: 15 to 50 days).

- Symptoms usually last less than 2 months.

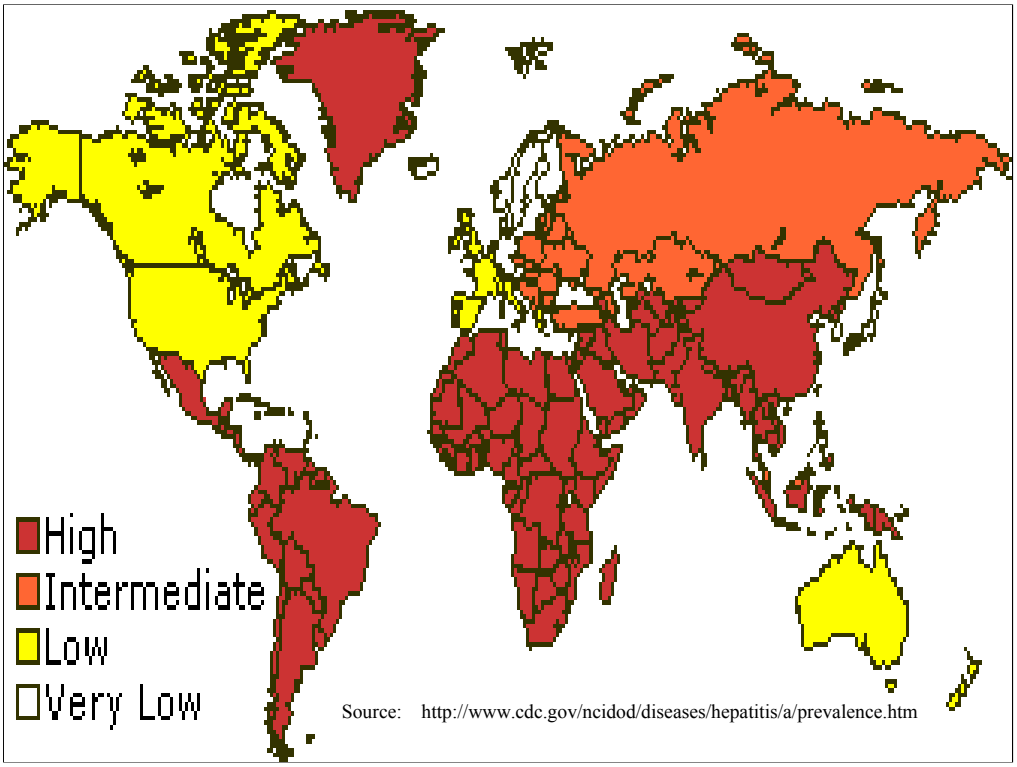
- A few persons are ill for as long as 6 months.



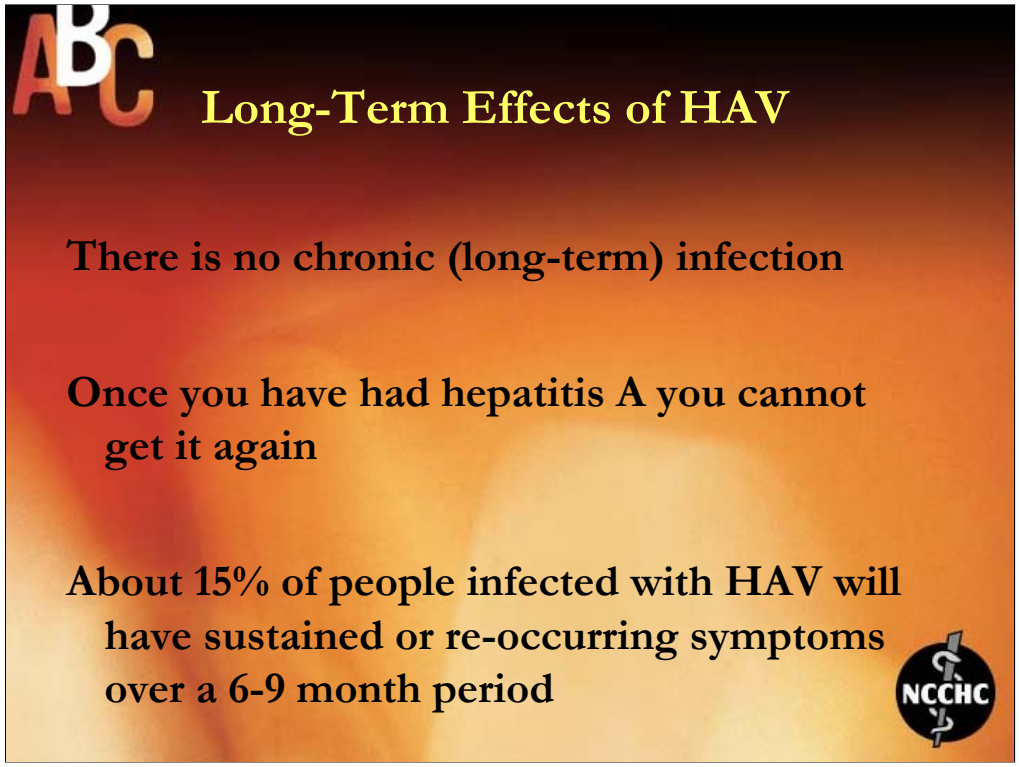
0:16 Persons at Risk

Who is more at risk for getting hepatitis A?

- Household contacts of infected persons
- Sex contacts of infected persons
- Persons, especially children, living in regions of the U.S. with consistently increased rates of hepatitis A (see Transparency 8)
- Men who have sex with men
- Injecting and non-injecting drug users, and . . .



- Persons traveling to countries where hepatitis A is common (e.g., Africa or South America).

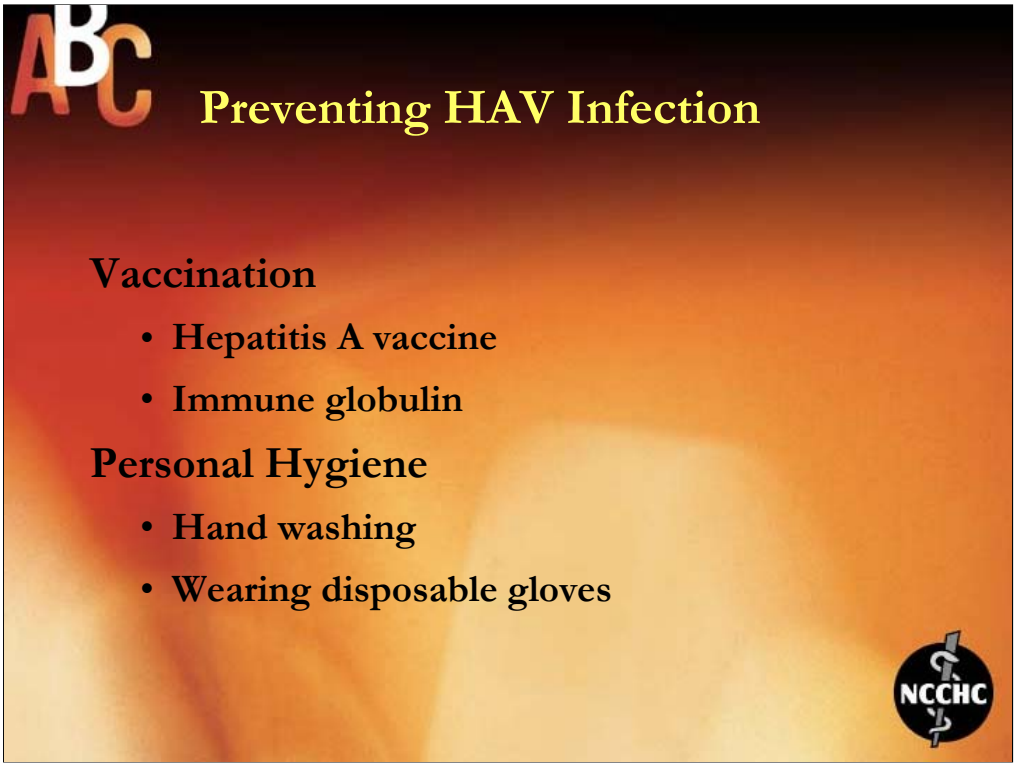


0:18 Long-Term Effects of HAV

There is no chronic (long-term) infection.

Once you have had hepatitis A you cannot get it again.

However, a small percentage of HAV-infected people (about 15%) will have prolonged or relapsing symptoms over a 6 to 9 month period.



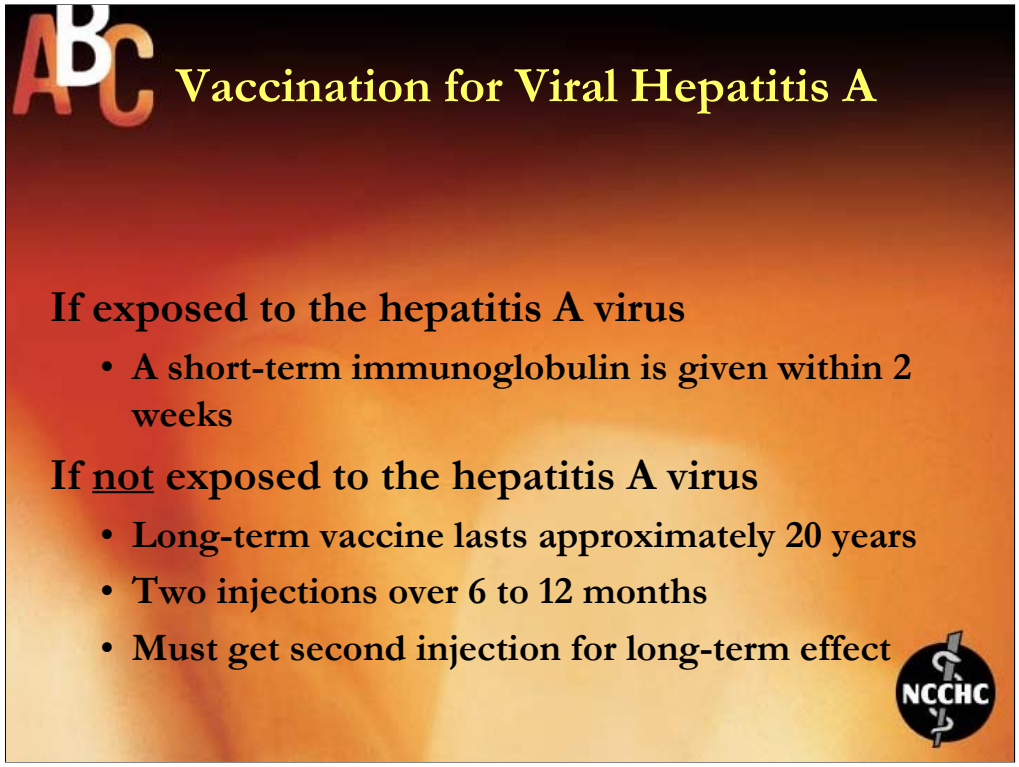
0:19 Preventing HAV Infection

There are two things that you can do to prevent hepatitis A virus infection.

The first and best protection is vaccination

- Short-term protection against hepatitis A is available from immune globulin.

- It can be given before and within 2 weeks after coming in contact with HAV.



If exposed to the hepatitis A virus a short-term immunoglobulin shot is given within 2 weeks.

If not exposed to the hepatitis A virus, a long-term vaccine lasts approximately 20 years.

This vaccination consists of two shots over 6 to 12 months.

The second shot must be given for long-term effect to take place.

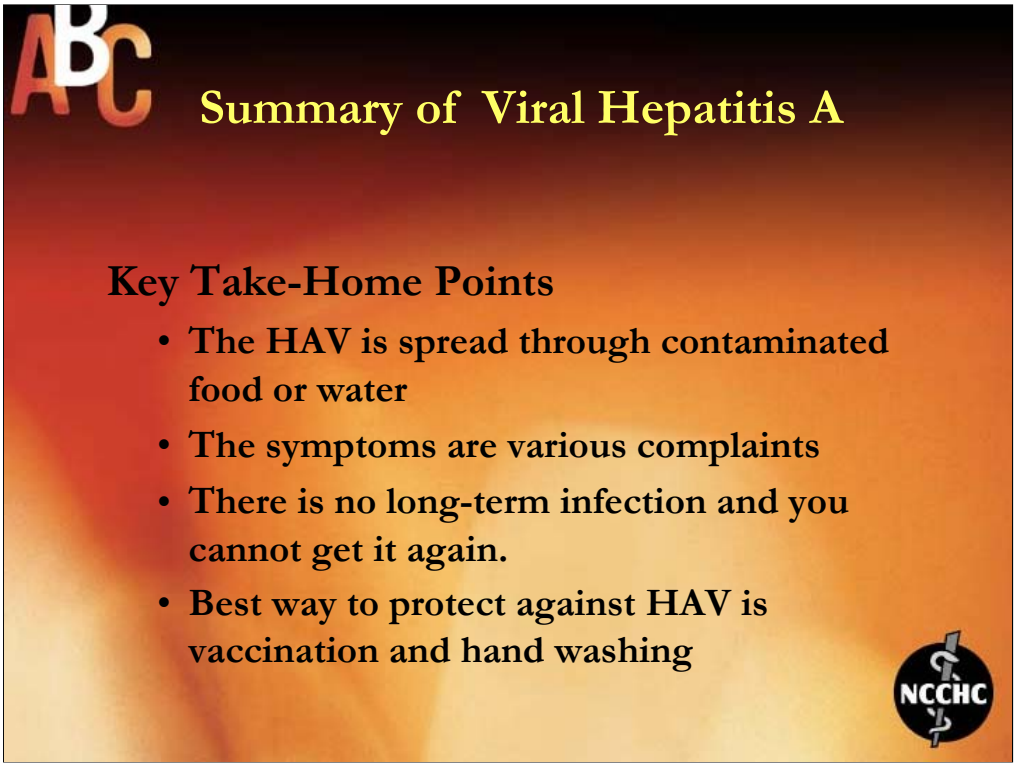
The second way to protect yourself against the hepatitis A virus is to make sure that you always practice good personal cleanliness and proper sanitation.

- Wash your hands with soap and water after using the bathroom, changing a diaper, and before preparing and eating food.

- Wear gloves when handling soiled inmate linen.

- Practice **standard precautions**.

If you wash your hands and are not having oral sex with inmates, you don't have to be worried about contracting viral hepatitis A in the performance of your job.



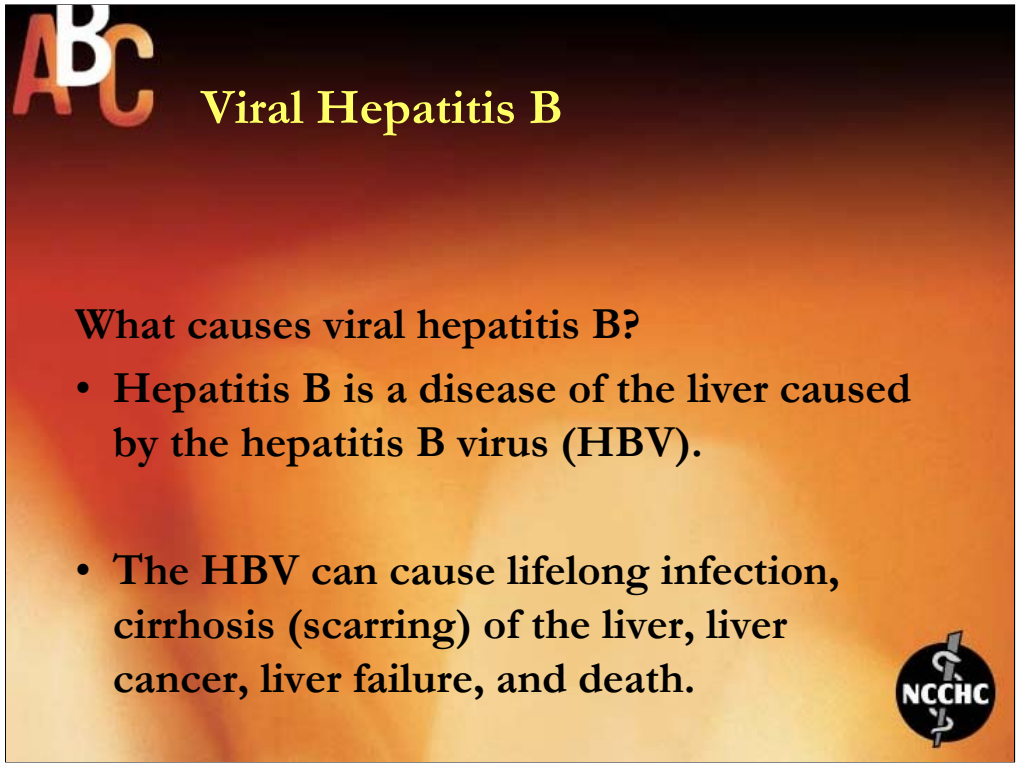
0:20 Summary of Viral Hepatitis A

To summarize

- You get hepatitis A by eating food or drinking water that has been contaminated with the feces of a person with the hepatitis A virus.
- Symptoms are usually quick and may include

  fever, tiredness, loss of appetite, nausea, vomiting, abdominal discomfort, jaundice, and dark urine.
- There are no long-term effects of HAV
- Vaccination is best way to protect
- Hand washing is also important

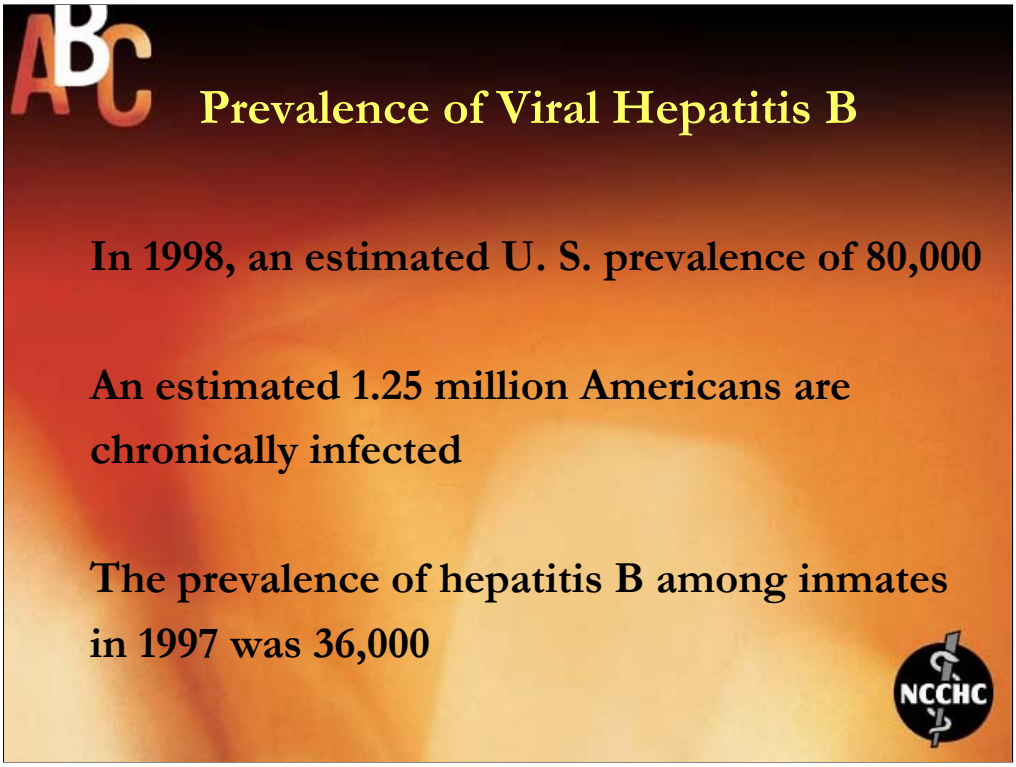
Any Questions?



0:21 Viral Hepatitis B

Hepatitis B is a disease caused by a virus that attacks the liver.

The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.



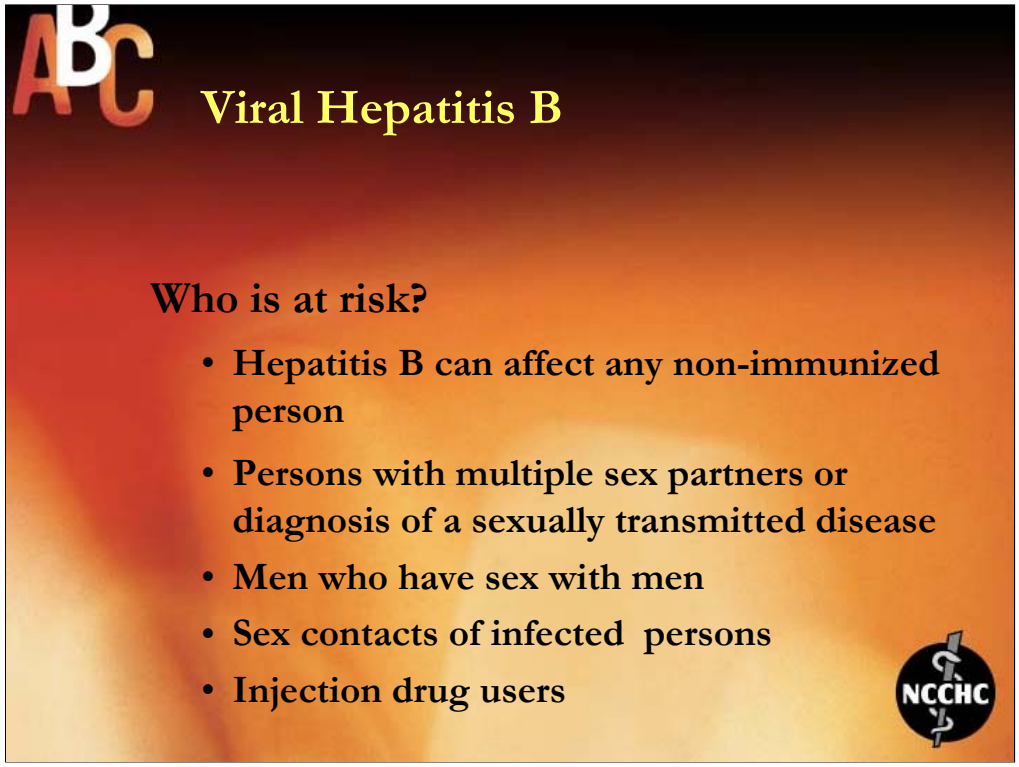
The number of new infections per year has declined from an average of 450,000 in the 1980s to about 80,000 in 1998.

Highest rate of disease occurs in 20 to 49 year olds.

The greatest decline has happened among children and adolescents due to routine hepatitis B vaccination.

The Centers for Disease Control and Prevention (CDC) estimates that 1.25 million Americans are chronically infected, with 20 to 30% of them acquiring their infection during childhood.

The National Commission on Correctional Health Care estimates that the prevalence of viral hepatitis B among inmates in 1997 was 36,000.



0:23 Viral Hepatitis B

Who is at Risk?

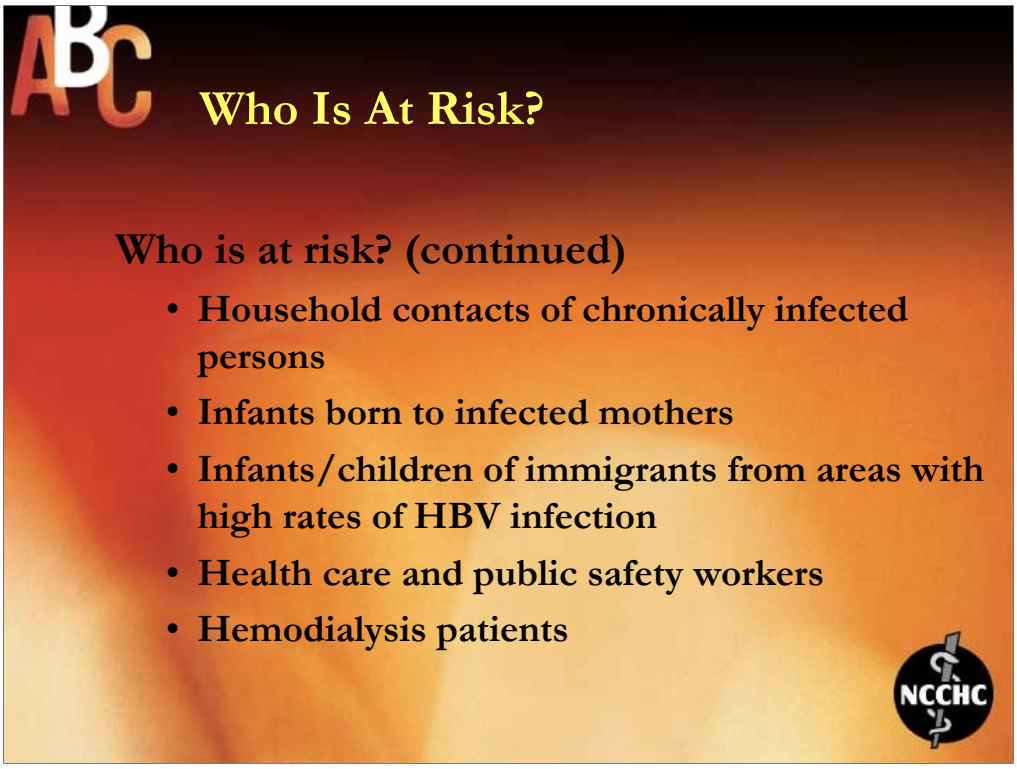
- Hepatitis B can affect anyone who is not immunized against the hepatitis B virus.

- Persons with multiple sex partners or diagnosis of a sexually transmitted disease.

- Men who have sex with men.

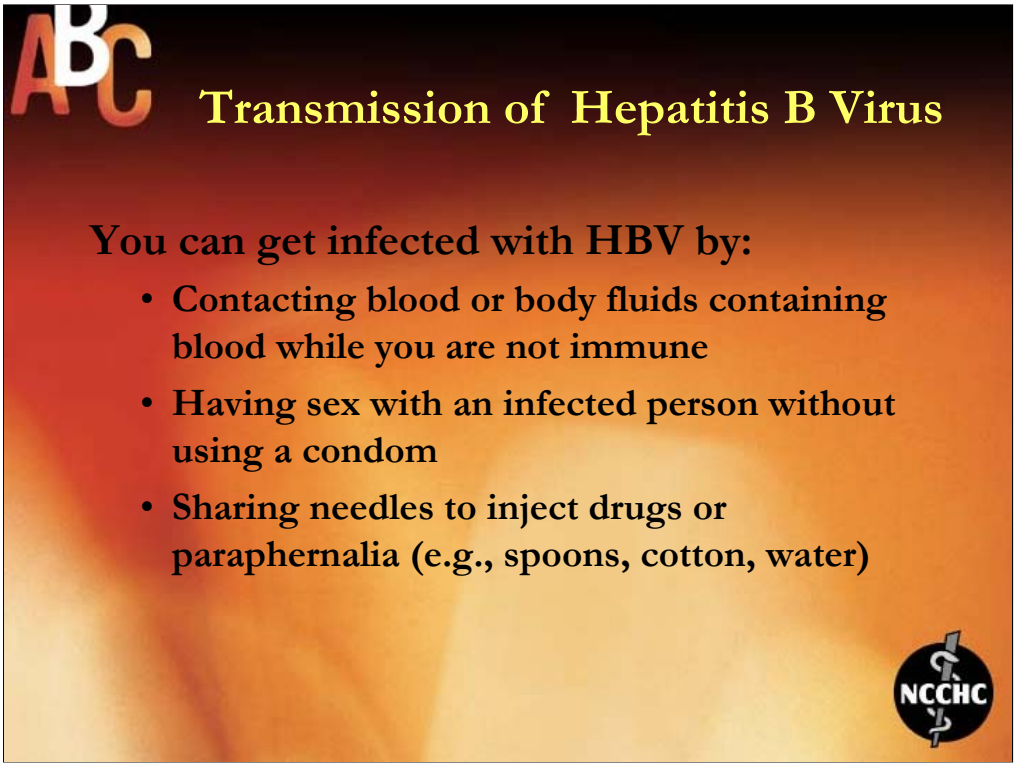
- Sex contacts of infected persons.

- Injection drug users.



Who is at risk?

- Household contacts of chronically infected persons.
- Infants born to infected mothers.
- Infants/children of immigrants from areas with high rates of HBV infection.
- Health care and public safety workers.
- **Hemodialysis** patients.



0:25 Transmission of Hepatitis B Virus

A hepatitis B infection occurs when blood or body fluids from an infected person enters the body of a person who is not immune. This does not include sweat, tears, and fluids that are free from blood.

There are a number of ways that you can get infected with the hepatitis B virus.

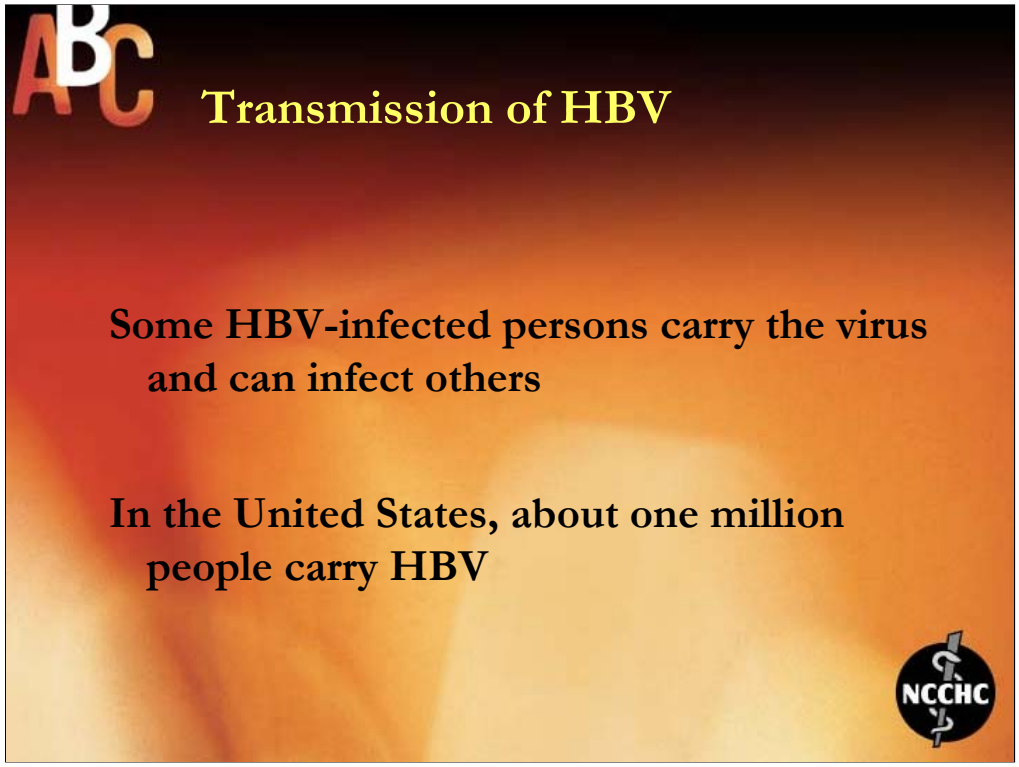
- Sharing needles or "works" when "shooting" drugs, through needle sticks or sharps exposures on the job.
- Having sex with an infected person without using a condom.
- The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.

Viral hepatitis B is not spread through food or water or by casual contact.

Many times, people do not know that they are infected with the hepatitis B virus.

Certain behaviors increase the chance that a person would get the hepatitis B virus.

- have sex with someone infected with HBV
- have sex with more than one partner
- are a man and have sex with a man



0:28 Transmission of HBV

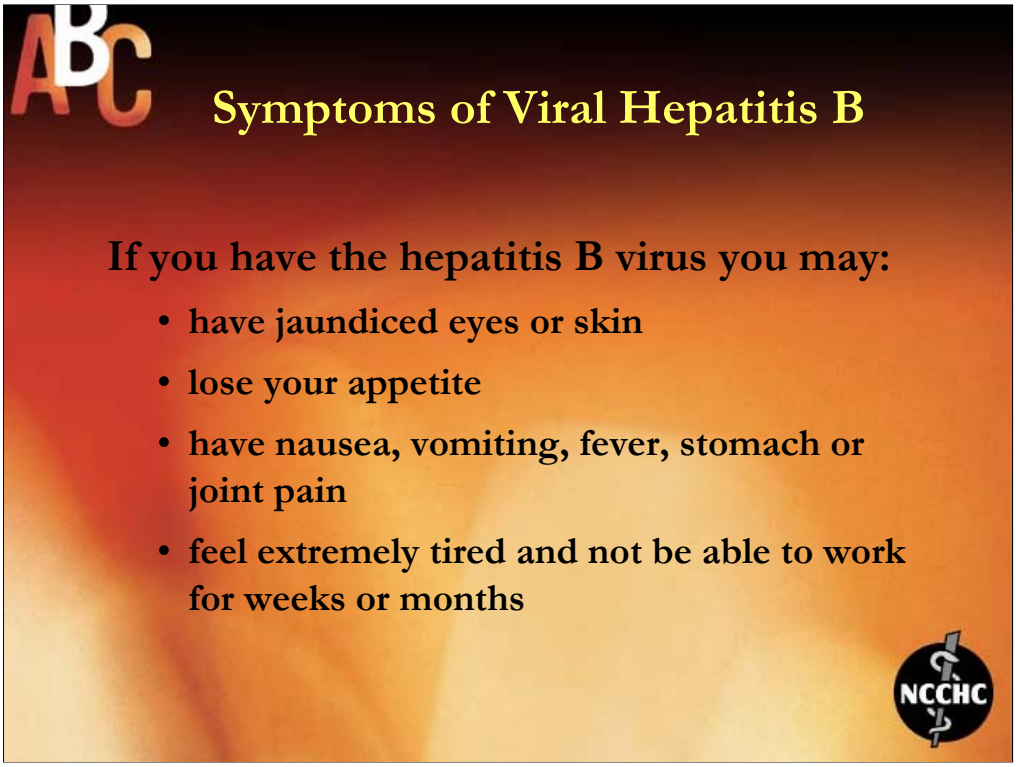
Hepatitis B Virus Carriers

- Most people recover, but sometimes, people who are infected with HBV never recover fully from the infection; they carry the virus and can infect others for the rest of their lives.

- "Carriers" will probably carry the hepatitis B virus in their blood for the rest of their lives.

- They may not look or feel sick, but they can spread the disease to other people.

- In the United States, about 1.25 million people chronically carry HBV.



0:30 Symptoms of Viral Hepatitis B

The symptoms of hepatitis B can include:

- jaundiced skin or eyes,
- loss of appetite and tiredness,
- nausea, diarrhea, or vomiting,
- pains in muscles, joints or stomach, and
- fatigue lasting weeks or months

The average incubation period (that is, when you are first exposed to the time you get sick) for the hepatitis B virus is 120 days.

0:31 Viral Hepatitis B

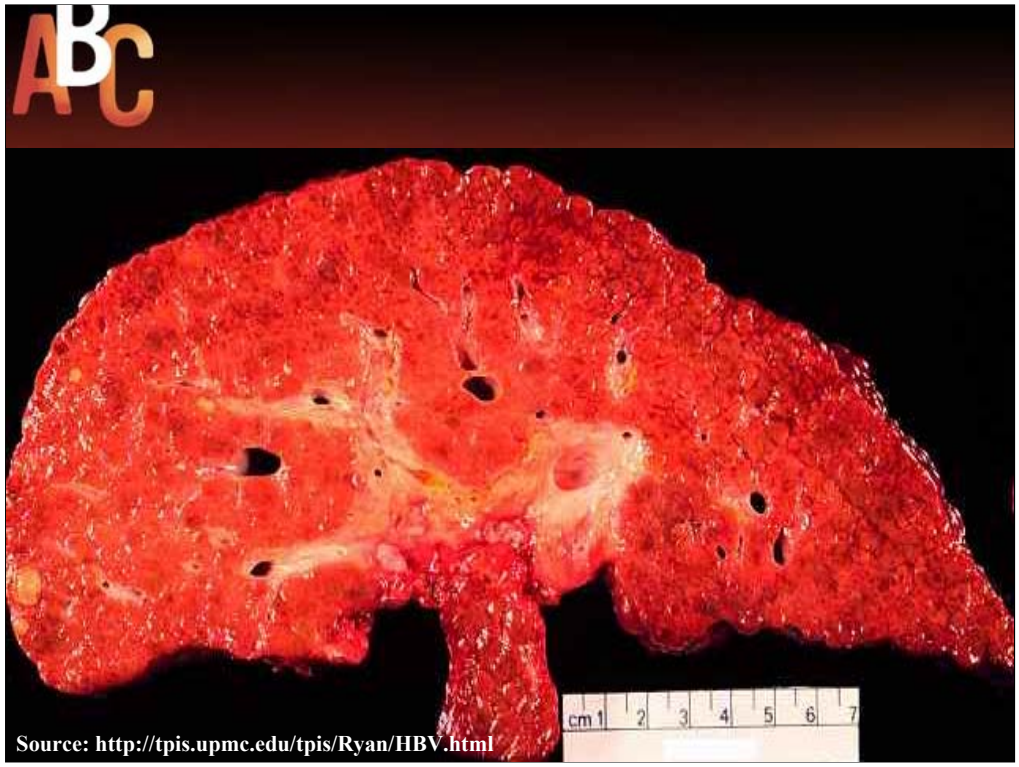
Viral hepatitis B is a serious disease. Persons with this disease get serious health problems, such as cirrhosis (scarring of the liver) or liver cancer. In fact, the hepatitis B virus causes most of the liver cancer in the world.

This photo is of a Cambodian refugee woman who had hepatitis B and liver cancer.

She died four months after she arrived in the camp.

Average life expectancy after diagnosis of liver cancer is four months.

[Photo courtesy of Patricia Walker, MD, Health Partners, St. Paul, MN]



In viral hepatitis B, the liver cells become enlarged. Notice the blistering of the capsular surface.

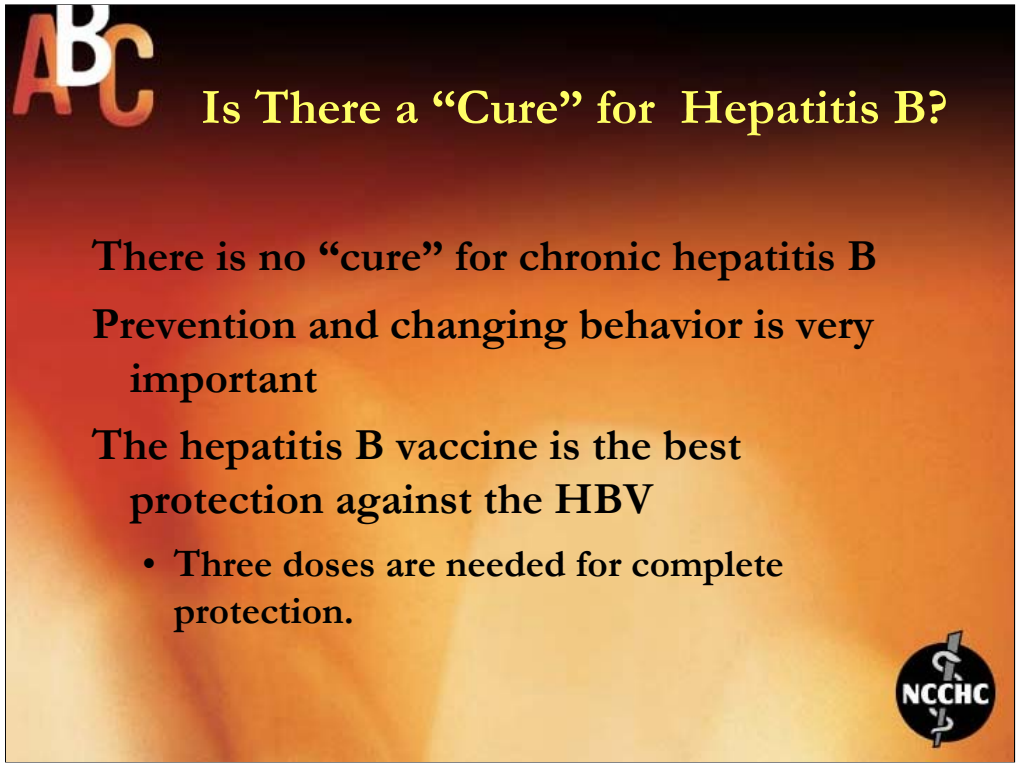
Putting a person with hepatitis in a separate, isolated room during their illness is not necessary unless the person has complications of hepatitis, such as bleeding problems.

This is the reason why inmates with hepatitis will not be placed in the infirmary or be isolated.

Use a common sense approach to handling inmates.

Care should be taken to limit contact with the person's blood and body fluids.

[Photo courtesy of Anthony Demetris, MD, University of Pittsburgh Medical Center, Pittsburgh, PA]



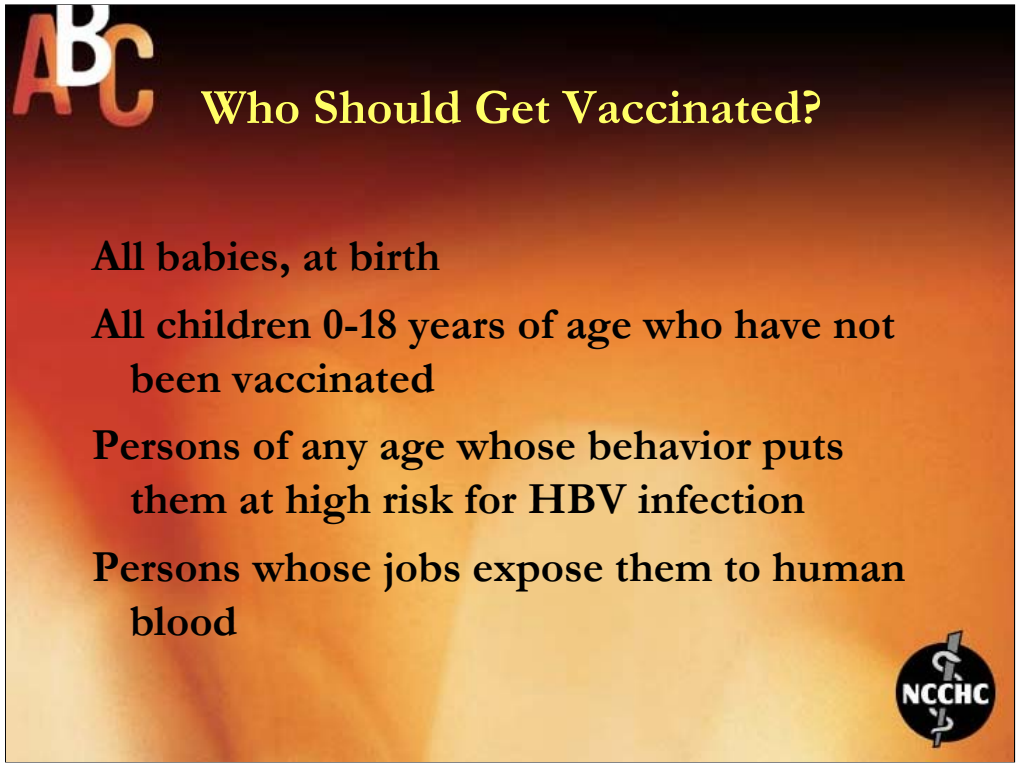
0:33 Is There a Cure for Hepatitis B?

There is no specific cure for viral hepatitis B once you get it.

So it is best to prevent getting viral hepatitis B in the first place.

Prevention and changing behavior are the keys to staying healthy.

A viral hepatitis B vaccine is the best protection against the HBV. Three doses are needed for complete protection.



0:33 Who Should Get Vaccinated?

All babies, at birth.

All children 0-18 years of age who have not been vaccinated.

Persons of any age whose behavior puts them at high risk for HBV infection.

Persons whose jobs expose them to human blood.

A person can catch viral hepatitis B by having sex, sharing drug needles, or sharing personal items, like razors or toothbrushes, with someone who has the disease.

So why do we immunize infants when they don't do any of these things?

We immunize newborns because, if a mother has viral hepatitis B, she can pass the disease along to her child while giving birth.

If these babies are not immunized and become infected with the hepatitis B virus, many of them will become carriers.

One out of four of these infected babies will eventually die from cirrhosis or liver cancer.

Health experts have also found that if we wait to immunize people until they are having sex or sharing drug needles, many will not get immunized.

By immunizing everyone when they are young, we are protecting them from getting the disease later.

Some states currently require vaccinations against hepatitis B for correctional officers.

Please contact your corrections department to determine the requirements in your area.

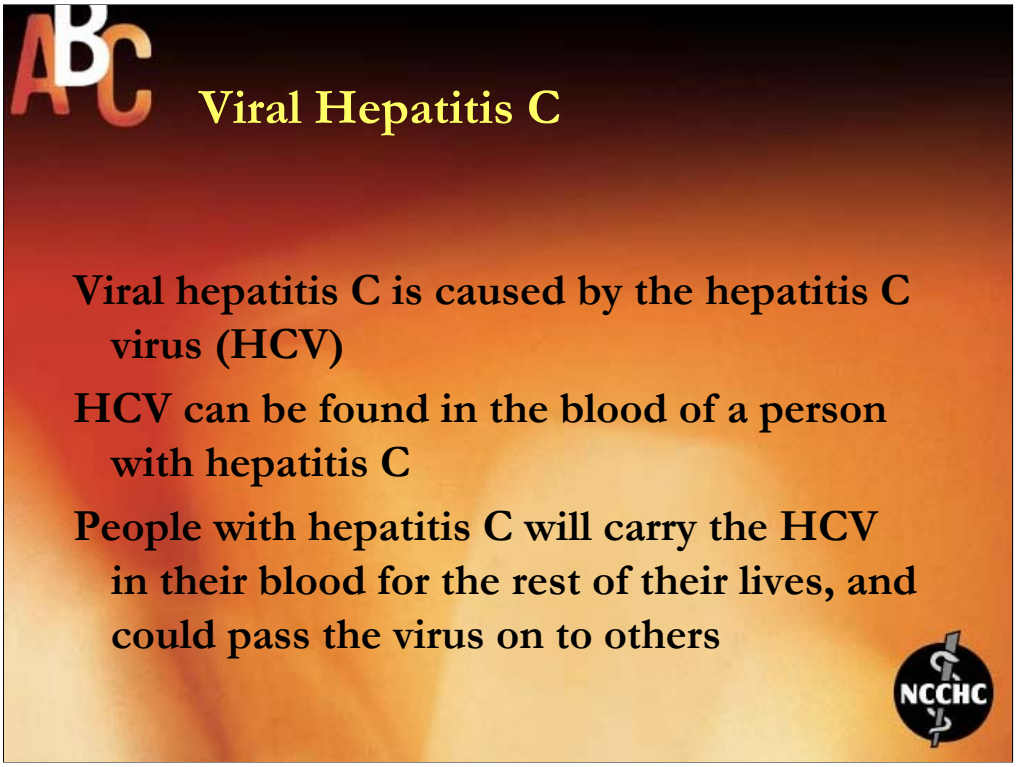
The Centers for Disease Control and Prevention, the National Commission on Correctional Health Care, and the Society of Correctional Physicians recommend that correctional officers and correctional health care workers be vaccinated against the HBV.

The institution's policies regarding hepatitis B vaccine are:

Insert the institution's policy on viral Hepatitis B vaccinations for correctional officers.

Answer questions relating to the facility's policy.

Spend no more than three minutes on this discussion.



0:40 Viral Hepatitis C

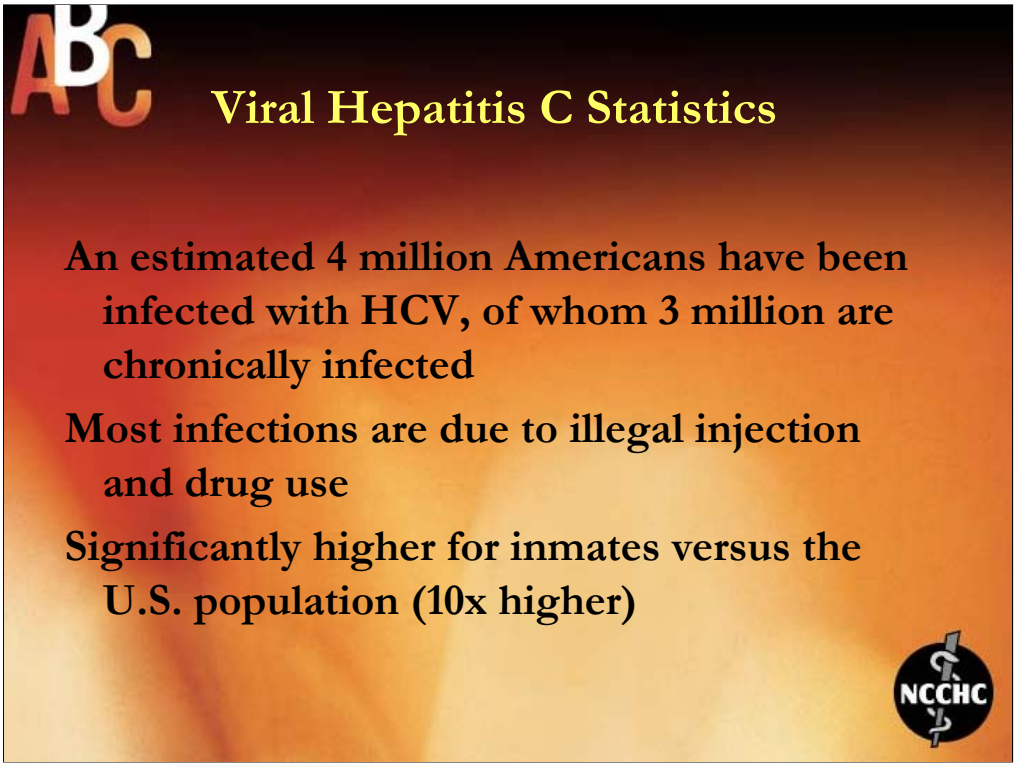
Hepatitis C is a serious infection of the liver caused by the hepatitis C virus (HCV).

It is believed that most people who catch hepatitis C will go on to carry the virus in their blood and could pass the virus on to others.

Most people who get viral hepatitis C may have no visible signs for up to 20 to 30 years after becoming infected.

This is a photo of a hepatitis C virus-infected liver. Notice the extensive damage to the liver.

[Photo courtesy of Anthony Demetris, MD, University of Pittsburgh Medical Center, Pittsburgh, PA]



The number of new infections a year has declined from an average of 240,000 in the 1980s to about 40,000 in 1998.

There are approximately 4 million Americans who have been infected with HCV.

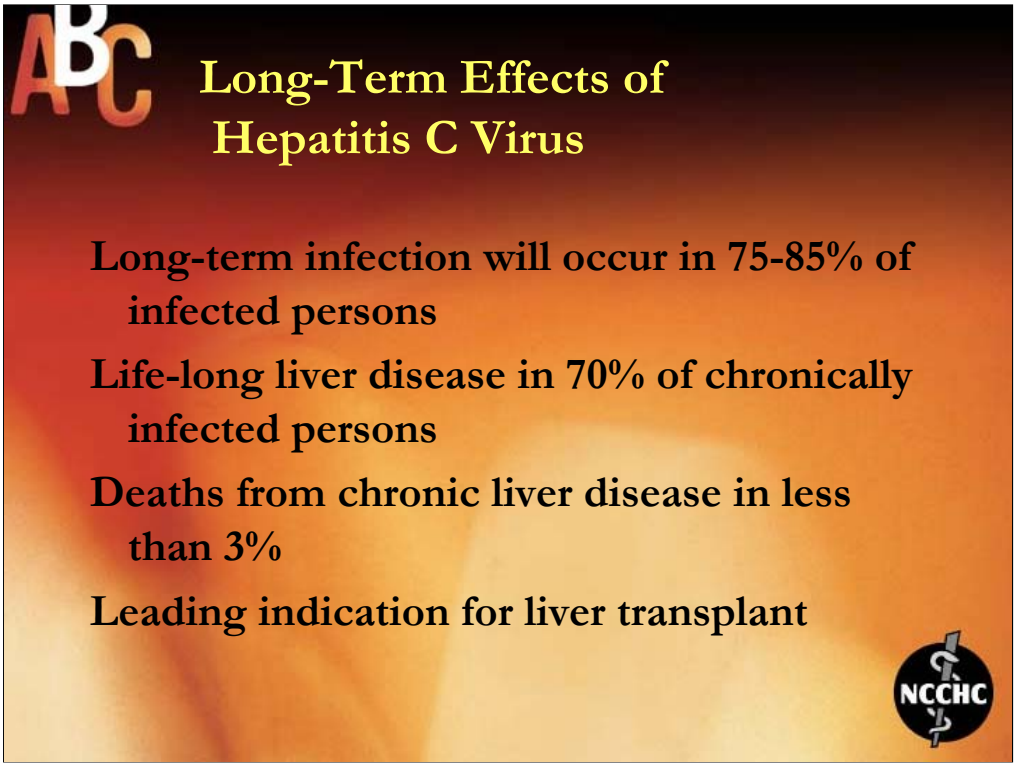
About 60% of the cases of viral hepatitis C occur through high-risk drug behaviors such as "shooting drugs."

Sexual transmission of the HCV does occur; however, this mode of transmission is inefficient.

Since 1992, all donated blood in the U.S. has been tested to detect blood infected with the hepatitis C virus.

People who get hepatitis C through blood transfusions are now very rare (less than 1 HCV infection per one million units transfused).

Because the HBV is spread through high-risk drug behavior, inmates are 10 times as likely to have viral hepatitis C than the U.S. population.



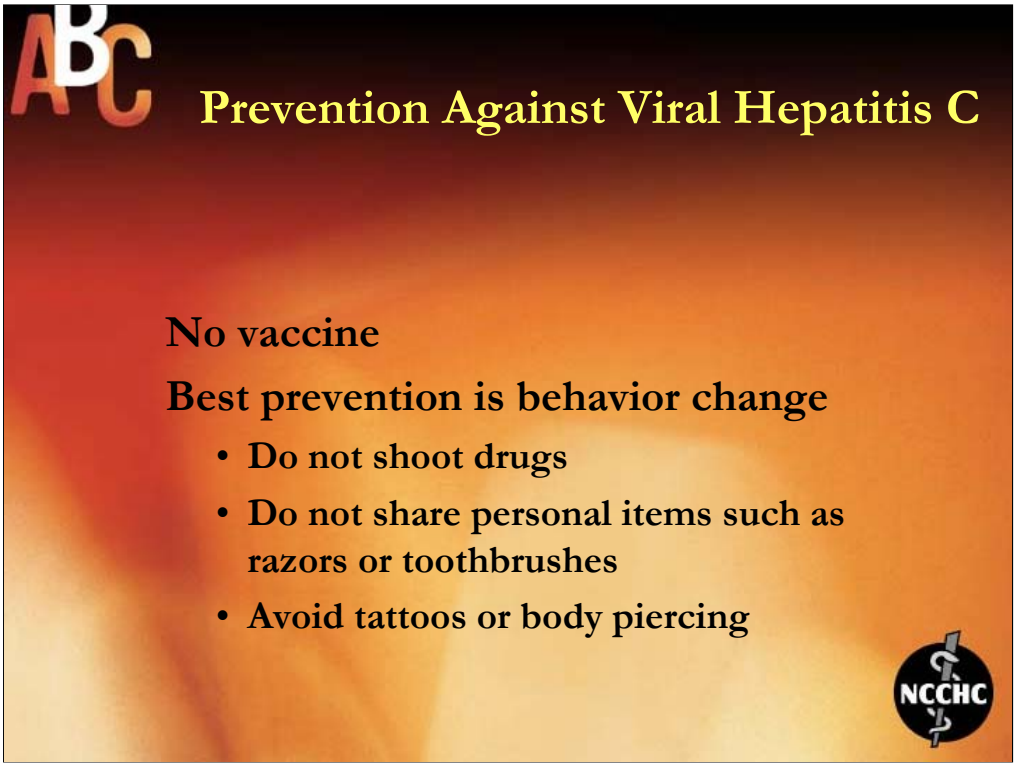
0:45 Long-term Effects of Hepatitis C Virus

Chronic infection occurs in 75-85% of infected persons.

Chronic liver disease will occur in 70% of chronically infected persons

- A little less than 3% of individuals with chronic hepatitis C die from chronic liver disease.

Hepatitis C is the leading indication for liver transplant.



There is no vaccine to prevent viral hepatitis C.

The best prevention is behavioral change

- Do not shoot drugs.
- Never share needles, syringes, water, or "works."
- Do not share personal care items that might have blood on them (razors, toothbrushes).
- Avoid tattooing or body piercing. (You might get infected if the tools have someone else's blood on them or if the artist or piercer does not follow good health practices.)

0:50 Preventive Measures

Other preventive measures that you can take:

- Get vaccinated against hepatitis A & B.

- If you are a health care worker or correctional officer, always follow routine standard precautions and safely handle needles and other sharps.

- The transmission of HCV through sex is inefficient. However, if you are having sex with more than one steady sex partner, use condoms correctly and every time to prevent the spread of sexually transmitted diseases.

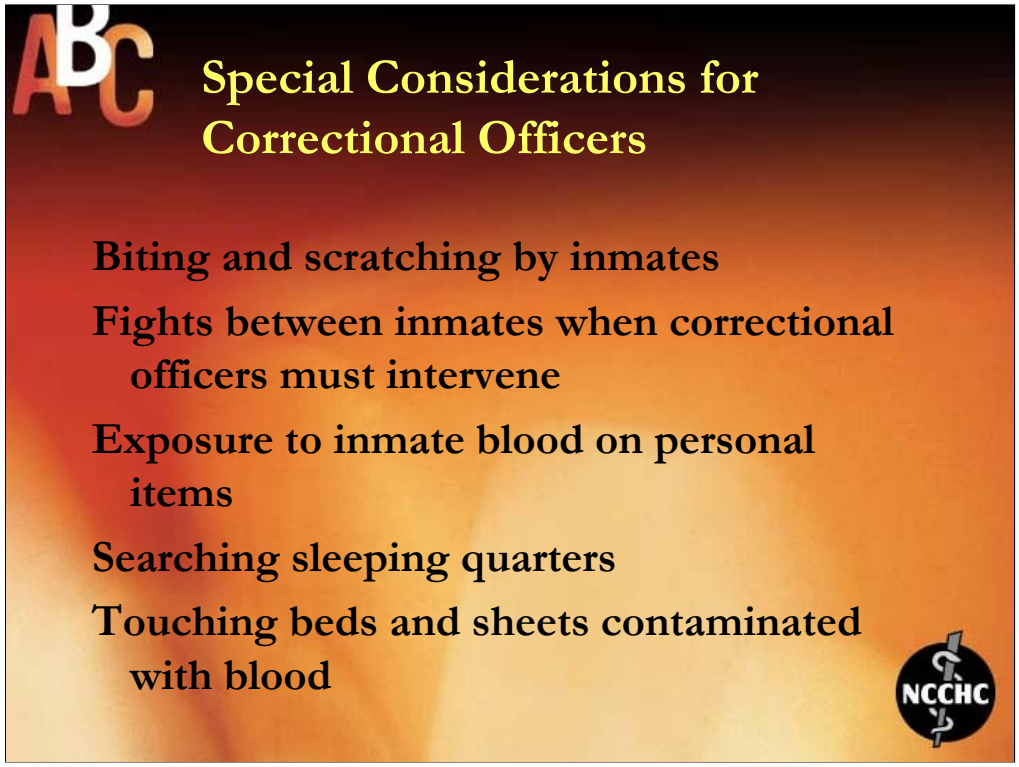
- The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.

HCV positive individuals should not donate blood, organs, or tissue.

This concludes Section I on hepatitis. Ask the audience if there are any questions regarding the three types of hepatitis that was discussed.

Spend no more than 5 minutes in this discussion.

Next, I will discuss the special considerations that you, the correctional officer, must take to protect yourself while on the job.



1:00 Special Considerations For Correctional Officers

Certain job-related activities put correctional officers at risk for contracting hepatitis.

I will next discuss the potential risks for correctional officers related to hepatitis.

I also will discuss some preventive measures that you can take and how to protect your family from hepatitis transmission.

Anything that exposes you to blood of inmates is a potential risk:

- Biting and scratching by inmates.

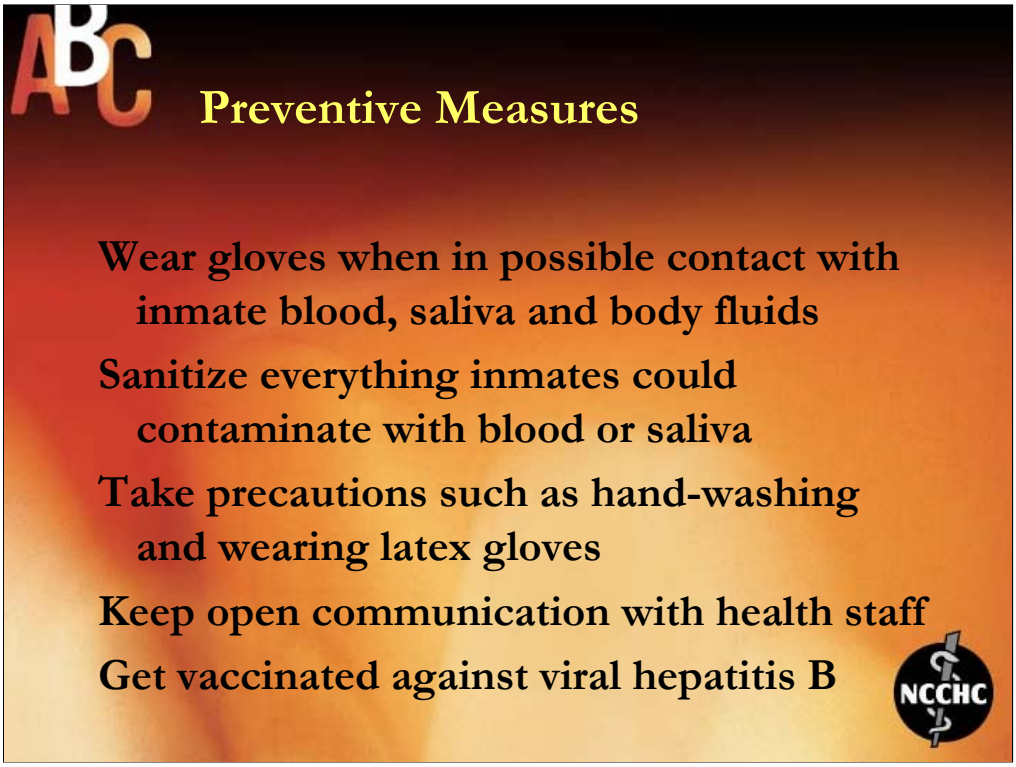
- Fights between inmates when correctional officers must intervene.

- Exposure to inmate blood on personal items.

- Searching sleeping quarters.

- Touching clothing, beds and sheets contaminated with blood or feces.

Although these are risks that correctional officers have in contacting any of the hepatitis viruses, you can take measures to protect yourself.



1:07 Preventive Measures

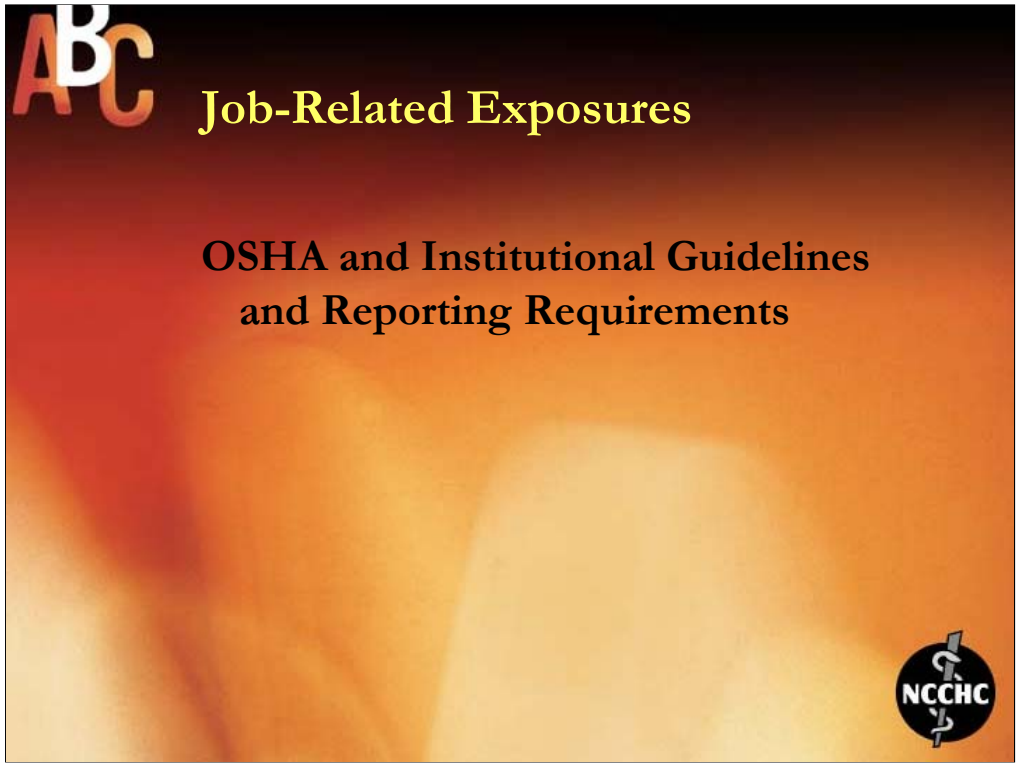
Wear gloves when coming into possible contact with inmate blood, and saliva/body fluids containing blood.

Sanitize everything inmates could contaminate with blood.

Take precautions such as hand-washing and wearing latex gloves.

Keep open communications with facility health staff.

Get a hepatitis B vaccination.



1:12 Job-Related Exposures

If you should become exposed to blood or other bodily fluids while on the job you should:

Insert institutional policies here.

Spend no more than 5 minutes discussing institutional policies relating to occupational exposures to bloodborne pathogens.

1:20 Protecting Your Loved Ones

Your family has concerns and fears about the hazards of your job.

You need to educate them and keep them informed.

Ignorance leads to frustration and fear.

- Tell your family about the training you have received.

- Tell your family about the risks and the daily precautions that you take.

- Tell your family about the institutional practices involved that protect you while on the job.

1:25 Question and Answer Period

Answer any question that may arise

Closing Commentary

Take a minute to make a closing comment that reinforces prevention and behavior change.

Next, administer the post-test.

[Note: In an effort to continually improve this curriculum, your comments and suggestions are solicited. Please write to the National Commission or email us at ncchc@ncchc.org.]